

## CONCLUSIONS AND IMPLICATIONS

The techniques employed in this study used several kinds of data and assumptions in projecting farm numbers and size distributions. The specific projections are, therefore, contingent upon the techniques, assumptions, and data employed. The different techniques are not necessarily equally valid for examining the same questions. The results, however, provide different perspectives and suggest some common tendencies and regularities.

Although the four frequently used techniques project future number and size of farms with some regularity, their accuracy varies. In addition, the projected size distributions may differ considerably from one procedure to another, even though the projected totals are similar. For example, farm numbers by acreage projected by trend extrapolation, Markov process, and age cohort analysis are reasonably comparable. However, trend extrapolation and age cohort analysis both project a slight decline in the number of farms of 2,000 acres and over, but Markov process projects a continuous, slow increase in the number of such farms (table 44).

Trend extrapolation gives fairly accurate projections by acreage, but commits a large projection error in sales distribution. Unlike the continuous trends for the acreage distribution, some of the trends for the sales distribution occasionally reverse. Trend projections, under this circumstance, could lead to an incorrect direction. For example, the number of farms with sales of \$20,000 to \$39,999 increased from 1959 to 1969, but then declined after 1969. Once a new trend is established, it is likely to continue to project an increasing trend for the number of such farms.

Table 44--Alternative projections of farm numbers, by size of farm, 2000

Size of farm	1974 Actual	Trend extrapolation	Negative exponential functions	Markov process	Age cohort
			<u>1,000 farms</u>		
1-99 acres	1,356	751	320	864	934
100-139 acres	259		113	121	
140-179 acres	240	300	104	102	301
180-219 acres	151		96	66	
220-259 acres	123	286	89	48	220
260-499 acres	379		712	182	
500-999 acres	211	205	430	152	164
1,000-1,999 acres	93	108	224	91	97
2,000 acres and over:	62	61	37	77	56
All farms	2,875	1,711	1,826	1,705	1,772